

## REMARKS

This Response, submitted in response to the final Office Action dated March 31, 2008, is believed to be fully responsive to the points of rejection raised therein. Accordingly, favorable reconsideration on the merits is respectfully requested.

Claims 15-22, 28 and 30 are pending. Claims 15-20 and 30 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over "Front Flash Thermal Imaging Characterization of Continuous Fiber Ceramic Composites" by C. Deemer, J.G.Sun, W.A.Ellingson, and S. Short, 23rd Annual Cocoa Beach Int. Conf. On Engineering Ceramics and Structures, Jan. 25-29, 1999 (Deemer), in view of U.S. Patent No. 3,675,074 (Dennewitz). Claims 21, 22 and 28 stand rejected under 35 USC § 103(a) over Deemer, in view of Dennewitz, in further view of "Integrated Gate-Commutated Thyristors: A New Approach to High Power Electronics," Eric Carroll et al., IGCT Press Conference, May 20, 1997 (Carroll). Applicants respectfully submit the following remarks in support of the patentability of the claims.

### 1. Claims 15-20 and 30:

Claims 15-20 and 30 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over Deemer, in view of Dennewitz. Applicants respectfully submit that Claim 15 is patentably distinguishable over the cited art for the reasons presented in Applicants' previous response. In particular, Applicants respectfully maintain that Dennewitz does not teach or suggest a timing generator configured to supply the control signal T2. Timing generators are discussed, for example in paragraph [0022]. As discussed in paragraph [0027], Figures 5-8 demonstrate variable quenching collateral with the applied gate pulse. As discussed in paragraph [0025], the flash has a duration D of about  $D=T_2-T_1$ , where T2 is the control signal supplied by the timing generator and T1 is the lamp trigger signal T1, where the timing generator is optionally further configured to supply the lamp trigger signal T1. In this manner, the quenching can be controlled with the applied gate-pulse, as shown for example in Figures 5-8.

In contrast to the present variable quenching scheme, the quench time in Dennewitz is determined by the reflection time for the light reflected from the illuminated object. Namely, Dennewitz uses a photosensitive element to detect a portion of the light reflected from an object illuminated by the flash tube. This detected light portion is

integrated to form a control signal, which is coupled to a second input of the comparator circuit. The gate is disabled and the flash terminated after a lapse of time sufficient to permit the control voltage to exceed the reference voltage. (Abstract)

Applicants wish to address the Examiner's argument that the fact that Dennewitz teaches a transistorized quenching arrangement for a duration-controlled flash tube "would imply that the transistor is acting as a timing control to control duration of the quench." The Examiner further submits that "the transistors performing the function of control of the duration are considered to be the timing generator." As discussed above, Dennewitz does not employ a timing generator. Instead, the duration-control in Dennewitz is determined by the reflection time for the return signal from the illuminated object. Thus, the transistors do not "perform[] the function of control of the duration" as suggested by the Examiner. Rather, the duration is set by the reflection time for the return signal. For at least these reasons, Applicants respectfully submit that Claim 15 is patentably distinguishable over Deemer and Dennewitz, either alone or in combination. Further, as claims 16-20 depend from Claim 15, these claims are also patentably distinguishable over the cited art, for at least the reasons discussed above with reference to Claim 15.

Applicants respectfully submit that Claim 30 is patentably distinguishable over the cited art for reasons analogous to those discussed above with reference to Claim 15. In view of the above, Applicants respectfully request that the rejections of Claims 15-20 and 30 under 35 USC 103(a) over Deemer, in view of Dennewitz, be withdrawn.

**2. Claims 21, 22 and 28:**

Claims 21, 22 and 28 stand rejected under 35 USC § 103(a) over Deemer, in view of Dennewitz, in further view of Carroll.

Claims 21, 22 and 28 depend from Claim 15. As discussed above in Section 1, Claim 15 is patentably distinguishable over Deemer and Dennewitz. The Examiner has cited Carroll for teachings regarding power semiconductor switches. However, Carroll does not supply the above-discussed deficiencies of Deemer and Dennewitz.

Accordingly, Applicants respectfully submit that Claims 21, 22 and 28 are patentably distinguishable over the Deemer, Dennewitz and Carroll, either alone or in combination, and respectfully request that the rejections of Claims 21, 22 and 28 under 35 USC 103(a) be withdrawn.

In view of the above, Applicants respectfully submit that Claims 15-22, 28 and 30 are in condition for allowance.

**CONCLUSION**

In view of the foregoing, Applicants respectfully submit that the application is in condition for allowance. Favorable reconsideration and prompt allowance of the application are respectfully requested.

**Please charge all applicable fees associated with the submittal of this Amendment and any other fees applicable to this application to the Assignee's Deposit Account No. 07-0868.**

Should the Examiner believe that anything further is needed to place the application in even better condition for allowance, the Examiner is requested to contact Applicants' undersigned representative at the telephone number below.

Respectfully submitted,

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